

CONVERTING VALUES TO TEXT BEFORE CONCATENATING

When I try to combine a cell that contains text with one that contains a date, the result is nonsense. The cell that holds the date is correctly formatted, but the resulting text says something like "Today is 38059" instead of displaying a date.

As you've seen, Excel ignores the formatting of the original cell when concatenating the two values and instead displays the serial date value. Before concatenating a date with text, you must convert the date to text and choose a format. Use the TEXT function followed by a format in quotation marks. If the date is in cell A15, for example, use this formula to get the result you're looking for: `"Today is "&TEXT(A15,"mmm d, yyyy")`.

SECRETS OF THE OFFICE MASTERS: USING GOAL SEEK TO FIND ANSWERS

After you've constructed a worksheet and built several intricate formulas, you might discover that you can't easily get the answer you're looking for. A formula that uses the PMT function, for example, is designed to produce the total monthly payment when you enter the price and loan details. But what if you've determined your maximum monthly payment, you've shopped around for the best interest rate, and now you want to calculate the maximum loan amount you can afford based on those values? Rather than construct a new formula or use trial-and-error methods to find the right result, use Excel's Goal Seek tool to perform the calculations in one operation:

1. Start by opening the worksheet that contains the formula you want to work with, and then choose Goal Seek from the What-If Analysis button on your Data ribbon. Excel displays the Goal Seek dialog box shown in Figure 20.18.
2. Fill in the three boxes to match the results you're trying to achieve. In the Set Cell box, enter the address of the formula whose results you want to control. In the To Value box, enter the amount the formula specified in the previous cell should equal. Finally, in the By Changing Cell box, enter the cell that contains the single value you want to change.
3. When you click OK, Excel runs through all possibilities and displays the Goal Seek Status dialog box, as shown in Figure 20.19. If you look at the worksheet itself, you'll see the values have changed to reflect the result shown here.
4. Click OK to incorporate the changed data into your worksheet; click Cancel to close the dialog box and restore the original data.

If your problem is more complex and can't be solved by changing a single cell, use the Solver add-in. Like other Excel add-ins, you must install this option before it's available on

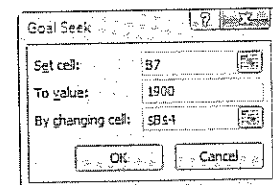


Figure 20.18

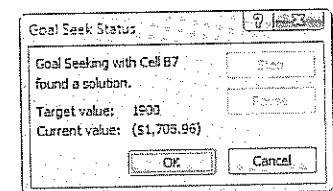


Figure 20.19

Window; the down arrow to the left of the Close box in the upper-right corner leads to a basically useless Customize menu.

→ For more details about using and customizing Office toolbars, see "Customizing Toolbars and Menus in Outlook and Publisher," p. 34.

After the Watch Window is open, use the Add Watch button to select a group of cells and quickly add them to the list.

TIP FROM

EQ & Woody

If you use the Watch Window a lot, we recommend that you define names for the cells you include on the Watch list. The Name column appears in the list, and a meaningful name like Jan_Sales_Total makes it much easier to identify the value you're tracking than a cell address like B10.

TROUBLESHOOTING

EDITING AN ARRAY FORMULA

I entered an array formula, but when I try to edit or copy it, the results change or I get an error message.

Editing an array formula is tricky. If the array formula was entered across multiple cells, you must select every cell that contains the array before you can edit it. If the array formula is contained in a single cell, you can edit it just as you would a conventional formula, but you must remember to press Ctrl+Shift+Enter to store your changes as an array formula. If you forget and press Enter, Excel stores it as a standard formula, with the wrong results. Finally, you'll notice some restrictions when you try to copy an array formula. If the destination range you select also contains the array formula, you'll get an error message. Select a new destination range, or use AutoFill to copy the formula. Oh, and don't try to cheat by adding your own curly braces to create an array formula—the only way to enter an array formula is to press Ctrl+Shift+Enter and let Excel add the curly braces.

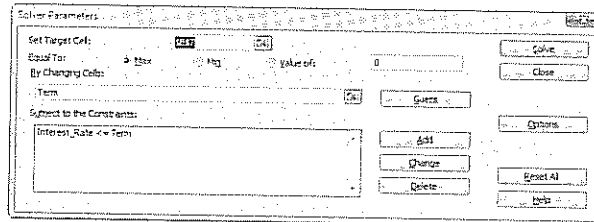
CHECKING FORMULAS BEFORE DELETING RANGE NAMES

After I deleted a range name in my worksheet, some of my formulas displayed error messages.

It's a frustrating fact of life: When you delete a range name from a worksheet, Excel does not automatically adjust any formulas that contain that range name. Even though it should, logically, be able to substitute the old cell address for the range name, it leaves the name there to torture you. After deleting a range name, you will see a #NAME? error in any cell that contains a formula with a reference to the deleted range name. Unfortunately, there's no easy way to determine which cell goes with the defunct name. If you spot these errors immediately after deleting the range name, press Ctrl+Z to undo your change. If you remember this possibility before deleting a range name, you can easily change any cells before deleting or changing the defined name. Press Ctrl+F to open the Find dialog box, enter the name of the cell or range, choose Formulas from the Look In box, and click Find Next to jump to and edit each cell that contains that name.

your ribbon. Click your Office button and then click Excel Options. Click the Add-ins link to display the Add-ins group options. At the bottom of the window, select Excel Add-ins for the Manage selection and click Go to display the Add-ins dialog box. Click the Solver Add-in option to install Solver for the first time (install the add-in if Excel says you need to). Then click to display your Data ribbon and on the far-right will appear the Analysis group with Solver button. Click Solver to display the Solver Parameters dialog box, as shown in Figure 20.20.

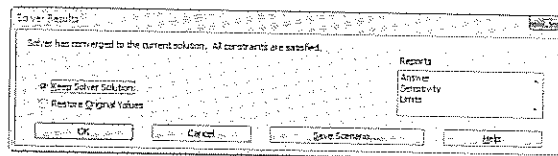
Figure 20.20
Use the Solver Parameters dialog box to specify more complex conditions for working backward to a formula's solution.



Select the cell that you want to adjust in the Set Target Cell box, click the Max, Min, or Value Of box, and enter a comparison amount. In the By Changing Cells box, select the cells you want to adjust. Note that unlike the Goal Seek feature, you can specify multiple cells here. Finally, enter any constraints you want to impose on the solution; for example, you can specify a maximum or minimum value for one or more of the changing cells. Click the Solve button to begin calculating.

When the Solver utility completes its calculation, it displays the Solver Results dialog box, shown in Figure 20.21. If Solver reports an error message, adjust the constraints and try again. If Solver successfully found a solution, you have three choices: Select the Keep Solver Solution option and click OK to change the values in your worksheet; choose the Restore Original Values option and click OK to cancel all changes; or click the Save Scenario button to create a worksheet scenario using the Solver results.

Figure 20.21
The Solver Results dialog box shows the results of a formula's calculations.



→ For a detailed discussion of workbook scenarios, see "Secrets of the Office Masters: Storing Multiple Scenarios in a Single Workbook," p. 588.